

REMARKS

This Amendment responds to the Office Action mailed December 11, 2009. Claims 1-20 were pending for examination in the application. Claims 1, 7, and 10 are amended. No new matter is added by way of the claim amendments and the new claims. Thus, claims 1-20 are now pending for reconsideration.

Summary of the Office Action

Claims 7 and 10 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Claim 1 stands rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 6,464,867 to Morita *et al.* (“Morita”). Claims 2-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morita in view of Japanese Patent No. 2002-210494 to Kazuki *et al.* (“Kazuki”).

Response to rejections under 35 U.S.C. § 112, first paragraph

Claim 7 is amended to comply with the Examiner’s suggestions. Specifically, claim 7 is amended to not refer to alloys other than a palladium alloy. Claim 10 is amended to add the letter “s” after “resin” as suggested by the Examiner, but the remainder of the rejection is respectfully traversed.

Applicants respectfully disagree that claim 10 recites subject matter not disclosed in the specification. The subject matter of claim 10 is described in the specification at least in the last line of paragraph [0022], which states “it is preferable to use a spherical catalyst support which is carried with the ion exchange resin such as anion exchange resin.” Accordingly, Applicants respectfully request withdrawal of the rejections of claims 7 and 10 under 35 U.S.C. § 112, first paragraph.

Response to rejections under 35 U.S.C. § 102(b)

In response to the Office Action, claim 1 is amended to recite that the ultraviolet oxidation equipment decomposes an organic compound to yield a decomposition product and that the anion exchange resins absorb the

decomposition product. Support for this amendment is provided in paragraphs [0015], [0029], [0045] and [0046] of the specification. Paragraph [0045] states that in “the ultraviolet oxidation equipment 3, organic compounds included in the primary pure water as liquid to be processed are decomposed and hydrogen peroxide etc. is generated.” Paragraph [0029] discloses that the anion exchange resins produce “[d]ecomposition products such as carbon dioxide generated by oxidative degradation of organic compounds are absorbed and removed in the catalyst mixed tower located in the downstream of the organic-compounds oxidation equipment by anion exchange resins held within the tower. Therefore, an ultrapure water production plant according to this invention can produce highly purified ultrapure water even if the load caused by negative ion ingredients is high.” The specification further provides in paragraph [0046] that “[t]he oxidized water introduced into the catalyst mixed tower 4 contacts with the catalyst resins configuring the catalyst mixed bed, hydrogen peroxide etc. is decomposed and removed, and carbonic acid ion etc. is removed by contact with strong base anion exchange resin.”

Morita describes how a resin supporting palladium and an ion exchange resin can be used in combination. However, Morita goes on to disclose that “[b]y using a combination of the resin supporting palladium and an ion exchange resin, palladium ion can be captured with the ion exchange resin even when an extremely small amount of palladium ion is eluted from the resin supporting palladium. Moreover, ion components eluted from the pump for transporting ultrapure water can be captured with the ion exchange resin even when such ion components are eluted.” Morita, col. 7, lines 57 – 67. Thus, Morita teaches use of a combination of resin supporting palladium and an ion exchange resin for a reason other than absorbing and removing decomposition products of organic compounds. Morita fails to disclose or teach that anion exchange resins absorb

and remove the decomposition product of the organic compound as recited in amended claim 1.

Since Morita fails to disclose or teach every element of amended claim 1, Applicants respectfully submit that the claim is allowable over Morita and, accordingly, request withdrawal of the rejection of claim 1 under 35 U.S.C. § 102(b).

Response to rejections under 35 U.S.C. § 103(a)

In the Office Action, claims 2-20 stand rejected as being unpatentable on the basis that it would be obvious to modify the invention disclosed in Morita to provide a degasser as suggested by Kazuki in order to remove gases evolved by the ultraviolet radiation and catalyst units. Applicants respectfully traverse this rejection.

As described above, Morita does not disclose or teach the limitation that anion exchange resins absorb and remove the decomposition product generated by a decomposed organic compound. Kazuki also fails to disclose this limitation. Each of claims 2-20 depend directly or indirectly from claim 1, and therefore recite all elements of claim 1, including the limitation that anion exchange resins absorb and remove the decomposition product generated by a decomposed organic compound. Since neither Morita nor Kazuki teaches this limitation, Applicants respectfully submit that claims 2-20 are allowable over the cited references. Accordingly, Applicants respectfully request withdrawal of the rejections of claims 2-20 under 35 U.S.C. § 103(a).

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is now in condition for allowance, and request that a notice of allowance be forthcoming. The Examiner is invited to contact the undersigned for any reason related to this case.

The Commissioner is authorized to charge any necessary fees to USPTO Deposit Account No. 18-1579.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert M. Hansen", is written over a horizontal line.

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Robert M. Hansen
Registration No. 43,656
The Marbury Law Group, PLLC
11800 Sunrise Valley Drive, Suite 1000
Reston, VA 20191-5302
(703) 391-2900
rhansen@marburylaw.com